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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/679,103	10/04/2003	David J. Danitz	PAT-1337-CIPCON	2233

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12420 Woodhall Way
Tustin, CA 92782

EXAMINER

NGUYEN, TUAN VAN

ART UNIT	PAPER NUMBER
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3731

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/05/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/679,103

Applicant(s)

DANITZ ET AL.

Examiner

Tuan V. Nguyen

Art Unit

3731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 50-68 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 50-68 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after the final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 20, 2006 has been entered.
2. Applicant added new claim 68. Now, claims 50-68 are pending in this application.

Response to Applicant's Arguments

3. Applicant's arguments filed on November 20, 2006 with respect to Spencer reference that the contact between the beads are not a line contact have been fully considered and persuasive. However, claims 50-67 and new claim 68 are rejected in view of new grounds of rejections.
4. Applicant's arguments filed on November 20, 2006 with respect to double patenting rejection that claim 1 of US Patent 6,638,287 calls for a rigid element that can be placed in a first position where the rigid element supports the shaft, which is not present in the pending independent claims, thus the rejection is not proper. Examiner respectfully traverse applicant's remarks: having the rigid

element results claims 1-7 of the patent narrow than the pending independent claims, thus the generic invention is "anticipated" by the "species". See *In re Goodman*, 29 USPQ2d 2010 (Fed. Cir. 1993).

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. **Claim 68 is rejected under 35 U.S.C. 102(b) as being anticipated by Madocks et al (U.S. 4,949,927).**
7. Madocks et al show (see Figs. 1 and 2) an articulate column, which is capable for use with a clamp device, having a shaft assembly comprising an articulate column. The articulate column comprises alternating first beads 12 and second beads 16, 18. The second beads 16, 18 have a larger inner diameter than the first beads and each of the second beads is supported on the outer surface of the first beads 12 wherein the second beads 16, 18 contact adjacent first beads 12 along the bevel angle B, thus the contact between first beads 12 and second beads 16, 18 is a line of contact (see col. 2, lines 20-35 and col. 5, line 45).
8. As to the recitation that the shaft is for use with a clamp device, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish

the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. **Claims 50-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Madocks et al (U.S. 4,949,927) in view of Madocks et al.**

12. Referring to **claims 50-52, 55-57 and 60**, Madocks et al show (see Figs. 1 and 2) an articulate column, that is capable for use as a shaft with a surgical clamp device, comprises alternating first beads 12 and second beads 16, 18. The second beads 16, 18 have a larger inner diameter than the first beads and each of the

second beads is supported on the outer surface of the first beads 12 wherein the second beads 16, 18 contact adjacent first beads 12 along the bevel angle B, thus the contact between first beads 12 and second beads 16, 18 is a line of contact (see col. 2, lines 20-35 and col. 5, line 45). Madocks also discloses that varying the bevel angle B of each socket or second beads, the stiffness of each joint can be controlled because the frictional force between the first beads 12 and second beads 16, 18 depended in value of the bevel angle, thus the stiffness of the column can be controlled (see col.2, lines 23-30 and col. 5, lines 45-50).

13. Still referring to **claims 50-52, 55-57 and 60**, Madocks discloses that the contact between first beads and the second beads is a line contact and the stiffness of the column or shaft can be control by the bevel angle B. However, Madocks does not specifically disclose the bevel surface of the socket or second beads is a convex surface. Therefore, it would have been an obvious a matter of design choice to one of ordinary skill in the art to design the bevel surface of the socket 16, 18 or beads 16, 18 to a convex surface because the contact between the first beads 12 and second beads 16, 18 at the bevel angle B still a line contact.
14. As to the recitation that the shaft is for use with a clamp device, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

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15. Referring to **claims 53, 54, 58, and 59**, Madocks does not show the second beads has a smaller outer diameter than each of the first beads or has the same outer diameter as each of the first beads. Therefore, it would have been an obvious matter of design choice to one of ordinary skill in the art to design an outer diameter of the second beads smaller than the first beads or same with each of the first bead since such a design does not solve any stated problem.
16. **Claims 61-67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cosgrove, III et al (U.S. 6,139,563) and further in view of Madocks et al (U.S. 4,949,927).**
17. Referring to **claims 60-64 and 67**, Cosgrove III et al show a clamp comprising a handle assembly 12, a gripping assembly 16 having a pair of jaws 48 and a shaft assembly 14. The shaft assembly has a flexible shaft, wherein the shaft having a proximal end coupled to the handle assembly and a distal end coupled to the gripping assembly. The flexible shaft defines a bore and comprises a plurality of beads 38. A cable 31 extends through the bore and has a proximal end coupled to the handle assembly and a distal end coupled to the gripping assembly. Cosgrove, III et al do not show the beads comprising alternating first and second beads wherein the second beads have a larger inner diameter than the first beads and each of the second beads is supported on the surface of the two adjacent beads at a line of contact and each of the second beads has a convex shape at the line of contact. Madocks et al show (see Figs. 1 and 2) an articulate column, that is capable for use with a clamp device, having a shaft assembly comprising an

articulate column. The articulate column comprises alternating first beads 12 and second beads 16, 18. The second beads 16, 18 have a larger inner diameter than the first beads and each of the second beads is supported on the outer surface of the first beads 12 wherein the second beads 16, 18 contact adjacent first beads 12 along the bevel angle B or, thus the contact is a circular line of contact (see col. 2, lines 20-35 and col. 5, line 45). It would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the bead formation of Cosgrove, III et al with the modified bead formation taught by Madocks, because this will provide a greater range of stiffness along the length of the shaft as suggested by Madocks.

18. Referring to **claims 65 and 66**, Madocks nor Cosgrovel do not show the second beads has a smaller outer diameter than each of the first beads or has the same outer diameter as each of the first beads. It would have been an obvious design choice to one of ordinary skill in the art to design an outer diameter of the second beads smaller than the first beads or same with each of the first bead since such a design does not solve any stated problem.

Double Patenting

19. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A

nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

20. Claims 50-68 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-7 of U.S. Patent No. 6,638,287 to Danitz et al. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1-7 disclose the invention substantially as claimed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan V. Nguyen whose telephone number is 571-272-5962. The examiner can normally be reached on M-F: 9:00 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, AnhTuan Nguyen can be reached on 571-272-4963. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tuan V. Nguyen
December 12, 2006


ANH TUAN T. NGUYEN
SUPERVISORY PATENT EXAMINER

12/22/06